from end to end, across the arc of the curve,  $3\frac{1}{4}$  inches; greatest diameter, which is towards the head, 1 inch; least diameter, at the fixed end, which has been broken off from the place of attachment,  $\frac{3}{8}$  inch.

Loc. "Port Phillip Heads."

Obs. Besides being far larger than the specimen above described, which I always thought to be more or less deformed, this one probably presents us with the typical characters of Lelapia australis, and hence my object in appending the above description. It must also, independently of its "typical" value, be considered a large calcareous sponge as the latter generally run. The spiculation may be a trifle larger than as above described, but the ridges are an entirely new feature, which in their characters are alone sufficient to distinguish the species; while the large acerate spicules of the body, arranged both transversely and longitudinally in the wall, represent the large sagittal triradiates of the "inarticulate" calcareous sponge-structure; the rest of the spicules here, including that remarkable form, viz. the "fork-like triradiate," to which I have above alluded as being so interesting in connexion with the fossil species Sestrostomella, being dwarfed into comparative insignificance.

# XVI.—Descriptions of four new Species of Butterflies from Burmah. By H. Grose Smith.

#### Papilio Adamsoni.

Upperside. Anterior wings brown-black, darker towards the base, the nervures and rays between the nervures black. Posterior wings the same colour as the base of the anterior wings, paler towards the anterior margin, crossed beyond the middle by an irregular band of five rosy-white spots, the spot nearest the anterior margin cordate, the next three conical and lunulated externally, the fifth spot at the anal angle nearly obsolete; below the band are three submarginal large spots, lunular, the innermost grey flushed with rosy carmine, the middle spot grey, less rosy, the third the same colour as the band.

Underside. Anterior wings as above, but paler. Posterior wings with the band brighter, larger, more regular and curved, containing six spots, the spot on the anterior margin nearly square, the second the largest and nearly divided by a

black mark, the third, fourth, fifth, and sixth smaller, the spot next the anal angle bright carmine; the three submarginal lunular spots also larger, the two lowest bright carmine, the third brightly tinged with the same colour. Palpi and body carmine, the latter broadly striped with black.

Expanse  $4\frac{1}{2}$  inches.

Habitat. Burmah, on the Siamese frontier, near the Salween river. Taken by Capt. Adamson, R.E. Nearest to P. Aristolochiæ, but very distinct.

In the collection of Mr. Adamson.

## Papilio mehala.

Upperside. Male dark brown, irrorated with ferruginous scales. Anterior wings with a minute white spot at the end of the cell, also on the margin at the ends of the discoidal and median nervules. Posterior wings irrorated in the region of the anal angle; beyond the middle is a band of seven spots, the spot on the costal margin creamy white, nearly square; the second, third, fourth and fifth the same colour, elongated, the third being the longest, the second, third, and fourth lunulated externally, the fifth smaller, and the sixth and seventh still smaller and pale brown; six small submarginal lunular spots and a small spot on the outer margin, the four nearest the anal angle pale brown, the others white, the margin between the nervures white.

Underside. Anterior wings irrorated, as above, towards the apex, paler, the spot at the end of the cell larger, and a double row of minute white spots on the margin. Posterior wings, the spots are whiter, the band smaller, and the sub-

marginal row larger.

This butterfly belongs to the "Castor" group.

Expanse 4 inches.

Habitat. Toungoo, Burmah.

In the collection of H. Grose Smith.

## Nymphalis Nicholii.

Anterior wings slightly falcate.

Upperside. Blue-black, dark brown towards the base, and nervures also brown, crossed beyond the middle by a double row of white spots, hastate inwardly, the two lowest of each row being confluent and tinged with yellow; below the spots at the inner angle is a yellowish-white longitudinal band extending nearly halfway along the inner margin; white marks on the margin between the veins, hardly visible towards

the apex, and gradually becoming more distinct towards the inner angle. Posterior wings dark brown at the base, covered with long brown hairs, the outer half creamy white tinged with yellow, and deeply dentated by the dark brown colour of the base, which partially follows the veins; the veins at the margins have hastate markings; a submarginal row between the veins of black spots, white in the centre, the second spot nearest the costa being the largest, and geminate spots at the anal angle. The first median nervule slightly projects, forming an indication of a tail.

Underside. Pinkish grey with numerous dark markings, crossed in the middle of both wings by an irregular dark band, and growing paler towards the margins. Thorax and abdo-

men brown. Antennæ black.

Expanse  $3\frac{1}{2}$  inches. Habitat. Burmah.

A beautiful and distinct species, in shape resembling the *Polyxena* group, but the tail is less pronounced.

In the collection of H. Grose Smith.

#### Neptis cineracea.

Upperside. Both wings greyish black mottled with brown. Anterior wings crossed beyond the middle by a greyish-white band broken into three spots—the first trifid, the second and third bifid; a narrow white band and conical spot in the cell, and a submarginal row of small white spots curved inwardly towards the anterior margin. Posterior wings with a greyish-white band of spots within the middle, and beyond the middle a row of oval spots, distinct and shaded with grey, and a faint submarginal line of grey.

Underside. As above, the grey shade on the white spots more pronounced, the submarginal row of spots with a greyish-brown interrupted line on each side; the base of the posterior wing broadly white on the interior margin, and the row of spots beyond the middle with an interrupted line of greyish

white on each side.

Expanse  $2\frac{1}{4}$  inches.

Habitat. Toungoo, Burmah.

Differs from "Nata" in the narrower and more acute shape of the wings, the narrow band in the cell, the colouring of the spots, the upper part of the middle bifid spot on the anterior wings not projecting beyond the lower, and the spots of the row beyond the middle of the posterior wings being nearly round instead of oblong, shaded with grey, and distinct.

In the collection of H. Grose Smith.